

THAT WHICH IS CLAIMED IS:

1. A process of treating wood with a preservative comprising:
providing a wood substrate;
applying to the wood substrate an aqueous solution comprising about 0.5% to about 50% of an iodic acid, a periodic acid, or a combination thereof;
about 0.05% to about 10% of a fluorinated surfactant with a perfluorinated chain; and,
optionally, an effective stabilizing amount of an ethoxylated nonylphenol;
wherein said aqueous solution reacts with the wood substrate to form an insoluble iodine matrix within the wood substrate, said iodine matrix providing a moisture resistant barrier imparting to the wood preservative properties against termites and decay.
2. A preservative solution for cellulosic materials comprising:
an aqueous solution comprising about 0.5% to about 50% of an iodic acid, a periodic acid, or a combination thereof;
about 0.05% to about 10% of a fluorinated surfactant with a perfluorinated chain; and,
optionally, an effective stabilizing amount of an ethoxylated nonylphenol.
3. A wood preservative solution consisting essentially of:
an aqueous solution of about 0.5% to about 50% of an iodic acid, a periodic acid, or a combination thereof;
about 0.05% to about 10% of a fluorinated surfactant with a perfluorinated chain; and,
an effective stabilizing amount of an ethoxylated nonylphenol.
4. A wood preservative solution consisting essentially of:
a stabilized aqueous solution of about 0.5% to about 50% of an iodic acid, a periodic acid, or a combination thereof; and,
an effective stabilizing amount of a fluorinated surfactant with a perfluorinated chain.

5. The process according to claim 1 wherein said aqueous solution further comprises about 0.5% to about 5.0% of an iodic acid, a periodic acid, or a combination thereof.
6. A preservative solution for treating cellulosic materials comprising:
 - an aqueous solution comprising about 0.5% to about 5.0% of an iodic acid, a periodic acid, or a combination thereof;
 - about 0.05% to about 5.0% of a fluorinated surfactant with a perfluorinated chain; and,
 - about 0.05% to about 5.0% of an ethoxylated nonylphenol.
7. The process according to claim 1 where in said applying step is selected from the steps comprising spraying, brushing, rolling, dipping, pressurization, and combinations thereof.
8. The product according to the process if claim 1.
9. A decay resistant wood product comprising a wooden substrate, said substrate having found therein an iodine matrix formed by the reaction of a periodic acid containing an effective amount of a stabilizer selected from the group consisting of fluorinated surfactants having a perfluorinated chain, ethoxylated nonylphenols, and combinations thereof.
10. The wood product according to claim 9 wherein said effective amount of said stabilizer comprises at least about 0.05% by weight.
11. A preservative solution for cellulosic materials comprising:
 - an aqueous solution comprising about 0.5% to about 5.0% of a concentrated periodic acid, iodic acid, or a combination thereof;
 - an effective amount of a stabilizer, said stabilizer selected from the group consisting of fluorinated surfactants having a perfluorinated chain, ethoxylated nonylphenols, and combinations thereof.